

Helping Massachusetts Municipalities Create a Greener Energy Future

GREEN COMMUNITIES
MASSACHUSETTS
DEPARTMENT OF ENERGY RESOURCES

COMMONWEALTH OF MASSACHUSETTS
Deval L. Patrick, Governor
Richard K. Sullivan, Jr., Secretary
Mark Sylvia, Commissioner

Performance Contracting

How does it really work?

Webinar
February 16, 2011
10:00 am

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Question #1

If you have a municipal role in your city or town, what is it?

- Municipal Administration
- Municipal Operations/Facilities
- Municipal Finance
- Municipal Legal
- I work in the school system, not for the municipality

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Question #2

If you have a school role in your city or town, what is it?

- School Administration
- School Operations/Facilities
- School Finance
- School Legal
- I work for the municipality, not in the school system

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Learn Before You Leap

Understand the Process

- ✚ Procurement
- ✚ Commercial Contracting
- ✚ Financing



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Industry Terms

- ✚ EMS: Energy Management Services
- ✚ ESCO: Energy Services Company
- ✚ O&M: Operations and Maintenance
- ✚ M&V: Measurement and Verification
- ✚ ECM: Energy Conservation Measure
- ✚ IGA: Investment Grade Audit
- ✚ RFP/RFQ: Request for Proposal/Qualifications

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Energy Management Services (EMS)

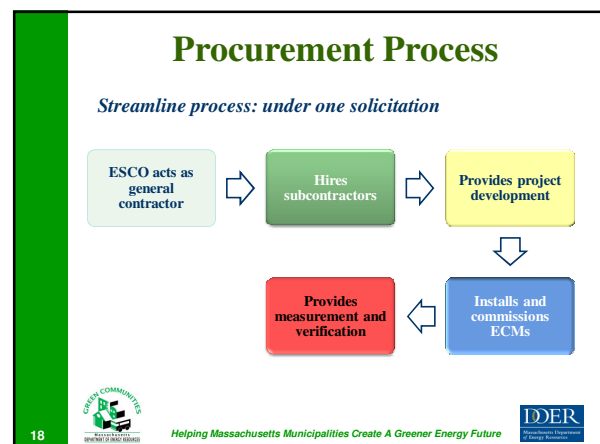
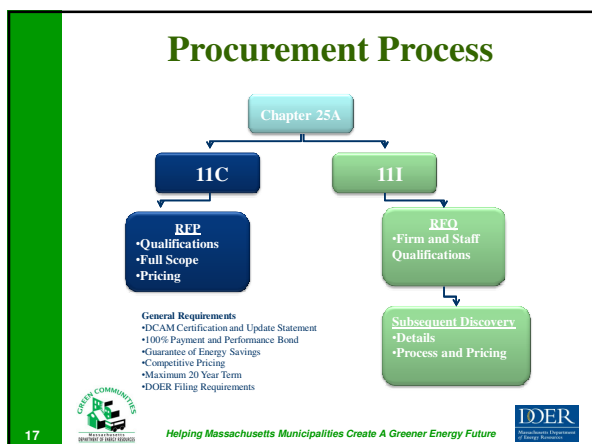
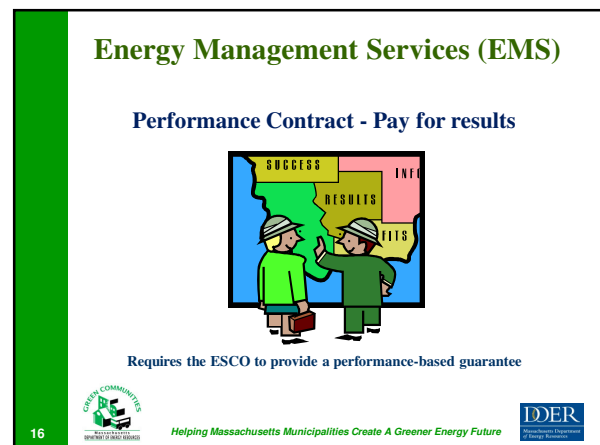
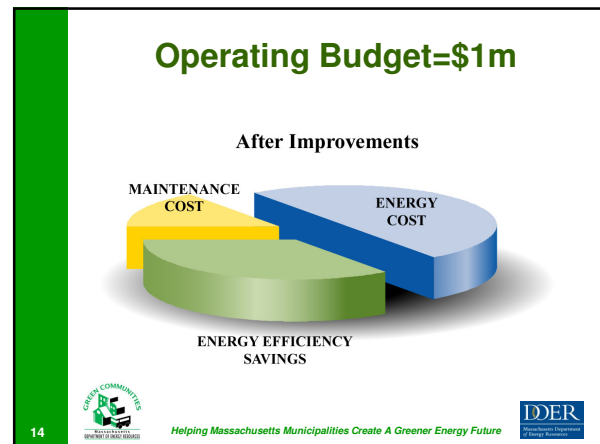
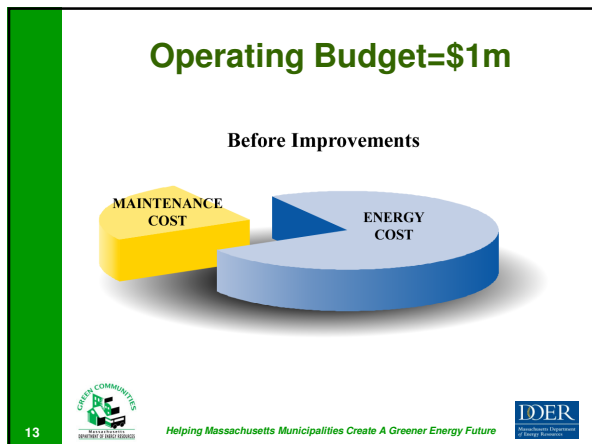
EMS is a type of performance contract used to install energy efficient facility improvements, with no up front cost, paid for out of guaranteed energy savings from your existing operating budget.

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Procurement Process

ESCOs offer a broad range of services including:

- ✦ Engineering, feasibility studies, and investment grade energy audits
- ✦ Equipment acquisition and installation
- ✦ Load management
- ✦ Training
- ✦ Maintenance services
- ✦ Measurement and verification
- ✦ Guaranteed results



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Reading, MA

Project

- Municipal & School Buildings
- Chapter 25A, 111
- Total Project Cost \$5.5 million
- Estimated Annual Savings \$350,000*

Measures

- Major Mechanical Systems
- Solar Domestic Hot Water
- Building Envelope

Emissions

- 35,73630 Lbs. CO2
- 0.035403 Lbs. NOx
- 0.147618 Lbs. SOx

* Project cost and savings are rounded up.



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Reading, MA

Newly installed hallway convector at Birch Meadow Elementary School



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Reading, MA

New chiller at Town Hall



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Reading, MA

Solar collectors at Police Station



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Question #3

What is your city or town doing with respect to performance contracts?

- Doing a performance contract
- Contemplating a performance contract
- Never heard of a performance contract



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Performance Contracting 101

General Approach

✦ Design-build energy efficiency project that leverages existing operating and energy budgets to implement turnkey energy efficiency and renewable energy solutions:

- Upgrade building infrastructure and increase building efficiency
- Reduce operating and maintenance costs
- Enhance operating staff productivity
- Implement renewable energy strategies
- Improve indoor air quality
- Enhance core curriculum by integrating innovative technologies with educational objectives



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Project Leadership

Build Support for the Project

- ✦ Assemble a multi-disciplinary team of stakeholders
 - Financial
 - Operational
 - Administration
 - Legal
- ✦ Select a "project champion"
- ✦ Develop stakeholder goals
 - Understand current energy baseline
 - Define project terms, objective, and constraints
 - Define risk tolerance in terms of project size, term, and cash flow
- ✦ Seek external support
 - Consider hiring an independent owner's agent to sit on your side of the table



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Launch From a Strong Foundation

Be Inclusive – Don't Beg for Forgiveness

- ✦ Take Ownership
 - Support "project champion"
 - Leverage internal expertise
- ✦ Community Outreach and Education
 - Educate stakeholders on procurement statute and benefits
 - Involve school committee and town management early in the process – get buy in at all levels
 - Establish a communications protocol and control process messages
 - Set proper expectations
 - Turnkey process that balances risk with cost
 - ESCO is a private entity with profit requirements



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Learn Before You Leap

Understand the Process

Commercial Contracting

- ✦ Investment Grade Energy Audit
- ✦ Energy Management Services Agreement
 - Construction
 - Commissioning
 - Training
 - Operations and Maintenance
 - Measurement and Verification



Financing

- ✦ How do you pay for it?



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Question #4

What kind of financing have you used to fund energy efficiency projects?

- Utility programs
- Municipal bonds
- Tax exempt lease/purchase
- None



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Available Financing Options/Tools

- ✦ General Obligation Bonds
 - Often best cost of capital
 - Can be amortized up to 20 years
 - Good Credit
 - If no access to QZABs, QECBs
 - 2/3 vote required for authorization
- ✦ Tax-Exempt Municipal Lease Purchase
 - Rates tied to LIBOR (taxable rates) rather than MMD Scale (tax exempt rates)
 - Easier to authorize than GO Bonds
 - Higher cost of capital
 - Shorter term – 15 years or less



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Available Financing Options /Tools (cont.)

- ✦ USDA Community Facility Financing
 - Must meet population and demographic requirements
 - Project must follow USDA guidelines
 - Must finance initial project cash flow from other sources
- ✦ Qualified Zone Academy Bonds for Public Schools
 - 35% or more of students must be eligible for free or reduced-price school meals
 - Tax credit bonds – zero or low interest
 - Must get allocation from state - must have an equity partner
- ✦ Qualified Energy Conservation Bonds
 - Can finance projects reducing energy consumption by 20 percent
 - Tax credit bonds – zero or low interest
 - Must get allocation from state



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Lessons Learned: Conduct a Meaningful Project



Avoid the Fashion Show

- ✦ Develop and issue solicitation in accordance with the statute
 - Mandatory requirements
 - Enhanced requirements for technical analysis, project development, construction, commissioning, training, operations, and measurement & verification
 - Develop comprehensive evaluation scoring criteria and matrix
 - Conduct price discovery
- ✦ Issue discovery as needed for clarification
- ✦ Conduct interviews with qualified Energy Services Companies ("ESCO")
- ✦ Implement ESCO evaluation process and rank ESCOs in order of most to least advantageous



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Lessons Learned: Construction

Define Requirements

- ✦ Develop a detailed project implementation schedule
- ✦ Contractually define project management obligation and responsibilities
 - Onsite project management adds cost to the project
 - Balance risk with cost
- ✦ Host regular progress meetings and have the ESCO issue meeting minutes
- ✦ Communicate project progress to all building "owners", "users", and other appropriate stakeholders such as the school committee and town management
- ✦ Tell your story to the wider community



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Lessons Learned: Determine Project Success

Implement Proper Measurement & Verification

- ✦ Measurement & verification is the method by which the ESCO demonstrates that the project is performing as guaranteed; or they write a check to cover the difference
- ✦ During the final stages of the Investment Grade Audit, negotiate a specific measurement and verification strategy for each energy conservation measure installed
 - The strategy must be well defined to ensure that the data provided each year over the term of the agreement is meaningful and allows you to verify that the guaranteed savings were achieved.
- ✦ Use the Federal Energy Management Program Measurement and Verification Guidelines



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Question #5

Do you need a full day workshop for performance contracting?

- Yes
- No



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Questions

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Municipal Energy Programs Coordinator
Department of Energy Resources

Beth Greenblatt ? ?
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David Eisenthal ? ? ?
Vice President/Senior Fiscal Advisor
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THANK YOU!

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www.mass.gov/green/energy-management-services_public-procurement



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